

REMARKS

Claims 1-3, 6, and 7 are pending in the application. Claims 1-3 and 6 are withdrawn from consideration as being directed toward a non-elected invention. In the non-final Office Action of July 11, 2007, the Examiner rejected claim 7 under 35 U.S.C. §102(b) as allegedly being anticipated by *Chung, et al* (“*Chung*.”) Applicants respectfully traverse the rejection and address the Examiner's disposition below.

Referring to Applicants' Figure 1 as an illustrative example, Applicants' independent claim 7, as amended, claims a method of manufacturing an image pickup device having at least one insulated gate field effect transistor 30 in an output circuit of the image pickup device and that is formed in a substrate 11. The method comprises forming, prior to forming the insulated gate field effect transistor 30, a first diffusion layer 12 of a first conduction type (*e.g.*, p+) in the substrate 11 beneath where the insulated gate field effect transistor 30 is to be formed. The first diffusion layer 12 is formed at a position deeper than a region where a source region 33 and a drain region 34 of the insulated gate field effect transistor 30 are to be formed. The first diffusion layer 12 underlies an entire area of the source region 33 and an entire area of the drain region 34 and is entirely separated from the source region 33 and the drain region 34.

The method further comprises forming, prior to forming the insulated gate field effect transistor 30 and after forming the first diffusion layer, a second diffusion layer 13 of the first conduction type having a higher concentration (*e.g.*, p++) than the first diffusion layer 12 in the substrate 11 at a position deeper than the first diffusion layer 12. The second diffusion layer 13 is entirely separated from the first diffusion layer 12 by an intervening layer having a conduction type that is different than the first conduction type.

This is clearly unlike *Chung*, which fails to disclose or suggest forming Applicant's claimed second diffusion layer, which is deeper than Applicant's claimed first diffusion layer, after forming the first diffusion layer. Referring to *Chung* Figures 5A-5D, *Chung* discloses forming a diffusion layer 501 (Figure 5A). Then, an N-type buried layer 505 is implanted within the diffusion layer 501 (Figure 5C). The N-type buried layer 505 has a U-shape, such that part of the diffusion layer 501 resides within the inside (*i.e.*, the mouth) of the “U” and part of the diffusion layer 501 resides outside of the “U” of the N-type buried layer 505. Thus, *Chung*'s N-type buried layer 505 and diffusion layer 501 are formed at the same time.

Even if one would argue that *Chung*'s buried layer 505 and diffusion layer 501 are formed at different times, *Chung*'s diffusion layer 501, which is deeper than *Chung*'s buried

layer 505, is clearly formed before forming the buried layer 505. Accordingly, for at least this reason, *Chung* fails to disclose claim 7.

The Examiner appears to argue that interchangeably argue that *Chung*'s buried layer 505 and also *Chung*'s substrate 500 anticipate Applicant's claimed second diffusion layer. To begin with, they cannot both anticipate Applicant's claimed second layer. And further neither anticipates Applicant's claimed second diffusion layer, at least because neither *Chung*'s buried layer 505 nor *Chung*'s substrate is formed after *Chung*'s diffusion layer 501 and position deeper than the diffusion layer 501.

For at least these reasons, *Chung* fails to disclose or suggest claim 7.

Applicants respectfully submit the rejection has been overcome and request that it be withdrawn.

CONCLUSION

In view of the foregoing, it is submitted that claim 7 is patentable. It is therefore submitted that the application is in condition for allowance. Notice to that effect is respectfully requested.

Respectfully submitted,

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